

C H A P T E R 3

L A N D F O R M A N D G R A D I N G P L A N

3.1 EXISTING LANDFORM

The grading plan for Shea/Baker Ranch was developed with the goal of retaining the existing landforms to the greatest extent possible. The hill located in Planning Area 1E, the hill to the east of Planning Area 1B and the Borrego Canyon Wash are the most significant natural features in the community. Portions of the site were graded previously pursuant to a development plan that was not completed, resulting in flat pads and slopes that will be modified to conform to the Shea/Baker Ranch Area Plan. Exhibit 3.1 illustrates the existing topography of the site. All elevations used throughout this chapter are measured as above mean sea level.

The Area Plan site generally slopes from the northeast to southwest along the Borrego Canyon Wash. Alton Parkway is at an elevation of 700 feet at the northeastern side of the community, and falls to an elevation of 559 feet at the southwestern edge of Shea/Baker Ranch. Bake Parkway is at an elevation of 708 feet at its intersection with Dimension Drive. It falls almost twenty feet, to an elevation of 690 feet, at its intersection with Baffin Bay Drive. Rancho Parkway at Alton Parkway is at an elevation of approximately 700 feet. The road rises as you travel southeast to a high point of 765 feet near the community boundary. The highest point within the community as it is proposed is located north of “A” Street in Planning Area 1E. The elevation at this point is 810 feet. The lowest point within Shea/Baker Ranch is located at the east corner of the intersection of Alton Parkway and Commercentre Drive. This elevation is 570 feet.



Scale: 1"=800'

Exhibit 3.1 – Existing Topography

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3.2 GRADING CONCEPT

3.2.1 Relationship of Elevations

The overall grading concept for Shea/Baker Ranch respects the existing landform to the extent possible. The Conceptual Grading Plan, Exhibit 3.2, illustrates the grading plan for Shea/Baker Ranch. A full size copy of this exhibit is located in Appendix B.

The hill in Planning Area 1B leading up to the IRWD reservoirs remains in its existing condition, and the toe of its slopes forms the edges for the Community Park in Planning Area 1B and a neighborhood park in Planning Area 1C.

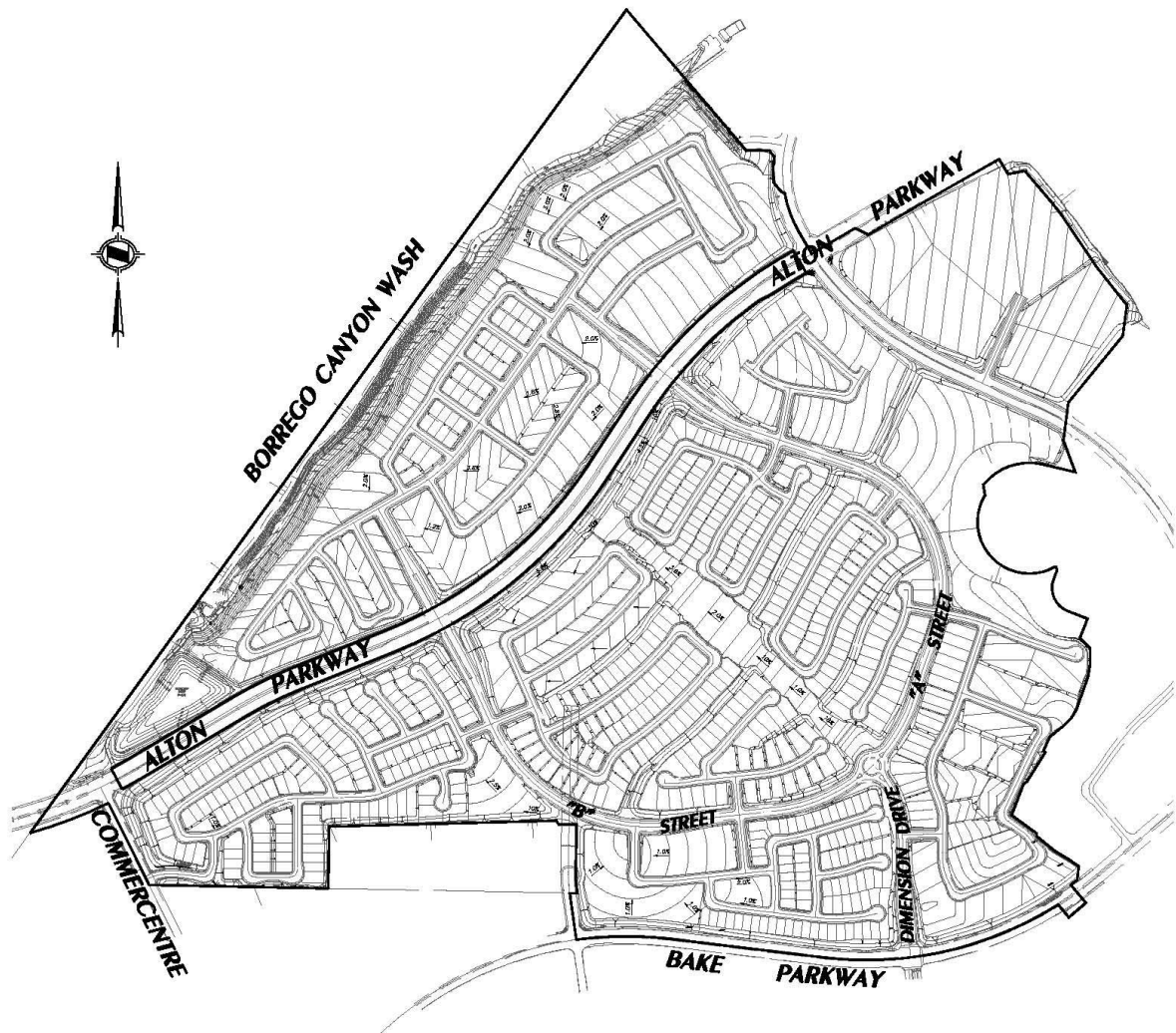
The central hill form is reconfigured and lowered while maintaining the general location of the site's highest point. Generally, the relatively steep peak of the hill is removed, and then the landform is terraced down the hill toward Alton Parkway through Planning Area 1E with slopes between some rows of homes to create views toward the north.

The community elevation along Bake Parkway will be raised from the existing condition to provide a grade separation between the homes and the roadway. This will create both a visual buffer and provide noise attenuation. The existing grade in Planning Area 1F is lowered adjacent to the existing recreational vehicle storage facility to provide a visual buffer.

A retaining wall will be constructed to change the grade between HHHH Street and the homes in PA 1F.

The areas along the northwest side of Alton Parkway remain the lowest pad areas. They are elevated above the existing condition by approximately 20 to 30 feet to provide separation from Alton Parkway and flood protection from Borrego Canyon Wash.

Planning Area 7 includes the Borrego Canyon Wash. The cross section of the Borrego Canyon Wash will be modified to stabilize the channel, to adequately convey storm flows, and to allow for revegetation.



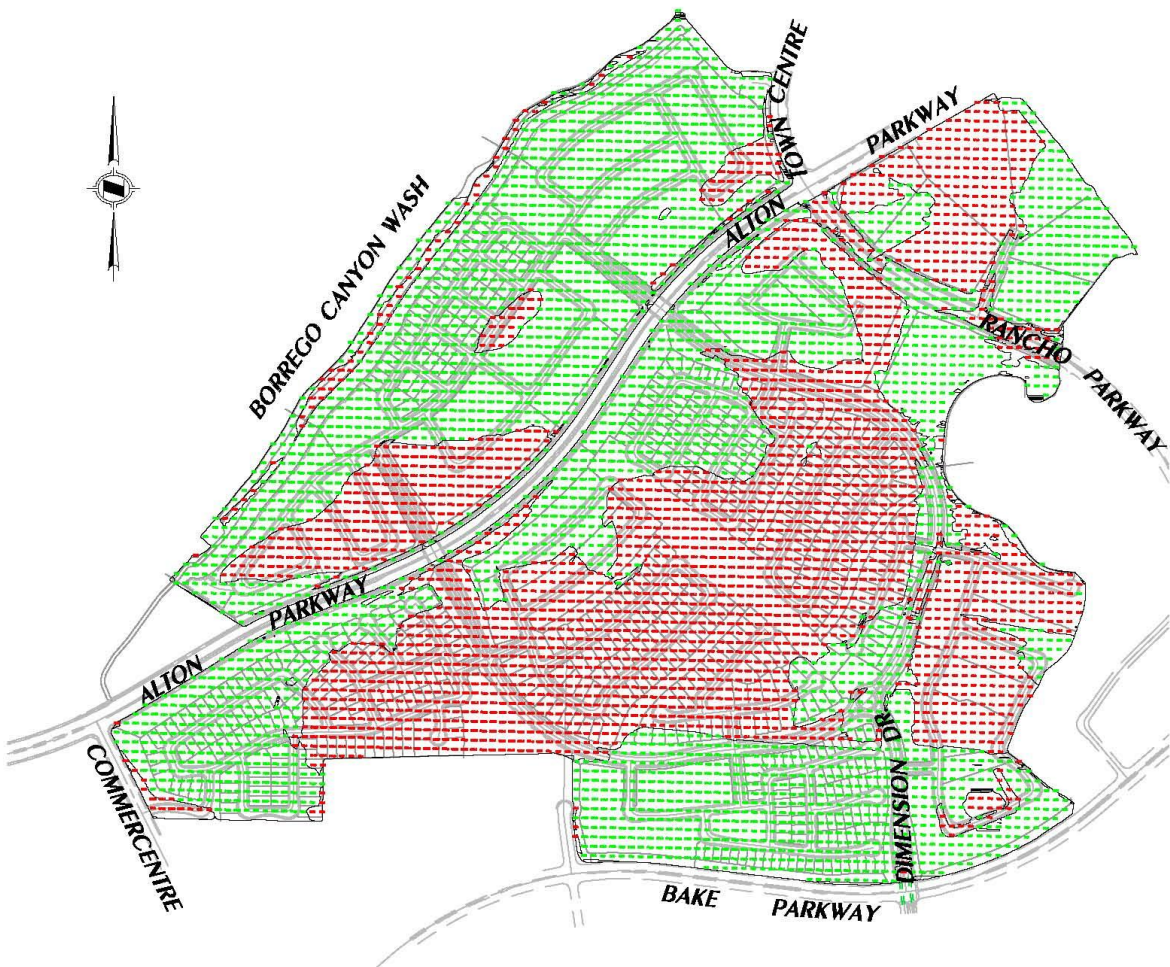
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Exhibit 3.2 - Grading Concept Plan



3.2.2. Earthwork Quantities

The grading concept is designed to retain the site's natural landforms to the extent feasible and to minimize grading. The existing and designed surrounding roadway network determines much of the grading. Implementation of the conceptual grading plan requires approximately 5,000,000 cubic yards of cut and an equal amount of fill. When the spoils generated through construction of roadways and building foundations are considered, the grading is expected to balance on site. Areas of cut and fill are shown on Exhibit 3-3. The grading will be accomplished in two phases, corresponding to the phases outlined in Chapter 11 of this Area Plan. The grading phasing is subject to change depending on a variety of factors, including geotechnical requirements and changes in community phasing.

To balance the site's earthwork, soil must be moved across Alton Parkway. Section E.2. of the Shea/Baker Ranch Development Agreement provides that different methods may be used to accomplish this, including temporary closures on Alton Parkway or constructing a temporary bridge or bridges across Alton for the use of earthmoving equipment.



LEGEND

- | | |
|---|----------------------|
|  | CUT - 5,000,000 CYS |
|  | FILL - 5,000,000 CYS |

Scale: 1"=800'

Exhibit 3.3 - Cut and Fill Map

3.2.3 Grading Development Standards

1. Grading shall conform to the City of Lake Forest grading ordinance and the County of Orange Grading Manual.
2. All grading activities shall be in substantial conformance with the provisions outlined herein, as shown on the project's Tentative Tract Map(s), and as described in the Shea/Baker Ranch Development Agreement.
3. All grading shall conform to the recommendations contained with a geotechnical report prepared for the site.
4. Any retaining walls proposed within Shea/Baker Ranch shall conform to the City's Retaining Wall Design Guidelines as approved by the City Council on 6/15/2010.